

de Havilland Inc.

Material Specification

TITLE:	STEEL, CORROSION RESISTANT, FREE MACHINING (303)
SPECIFICATION NUMBER:	DHMS M2.23
ISSUE:	ORIGINAL
AMENDMENT:	1
DATE:	January 11, 1999
PAGE:	1 of 4

Information in this document is **proprietary** to de Havilland Inc. This document must not be reproduced or distributed in the whole or in part to a third party without prior express permission in writing from de Havilland Inc.

Prepared by:

Reviewed by:

SIGNED ORIGINAL ON FILE

Laimon Salnais
Materials Technology

Roque Panza-Giosa
Chief, Metals Technology

Approved by:

Leonard K. John
Manager
Materials Technology

Frank Woodward
Quality Assurance

de Havilland	Material Specification	DHMS: M2.23 ISSUE: Original
	STEEL, CORROSION RESISTANT, FREE MACHINING (303)	AMD.: 1 DATE: January 11, 1999. PAGE: 2 of 4

REVISION RECORD

Issue	Page	Description and Reason for Change
Original	3	Para. 3 revised to add Type II to AMS 5640
Amd. 1	3	Para. 4.1 revised to add Type II to AMS 5640
	4	Para. 5.1 revised to add Type II to AMS 5640
	4	Para. 5.3 revised to add Type II to AMS 5640

de Havilland	Material Specification	DHMS: M2.23 ISSUE: Original
STEEL, CORROSION RESISTANT, FREE MACHINING (303)		AMD.: 1 DATE: January 11, 1999. PAGE: 3 of 4

1 SCOPE

This specification, in addition to AMS 5640, contains the requirements for Steel, Corrosion Resistant, Bars, Wire, and Forgings, 18Cr - 9Ni Free Machining.

2 APPLICABLE DOCUMENTS

AMS 5640 Steel, Corrosion Resistant, Bars, Wire, and Forgings, 18Cr - 9Ni, Free Machining.

3 REQUIREMENTS

Material purchased to this specification shall conform to the requirements of AMS 5640 Type I or Type II.

3.1 Mechanical Properties

Material purchased to this specification shall meet the mechanical properties stated in Table 1:

Table 1: Mechanical Properties

Condition	Finish	Thickness inches	F _{tu} ksi (min)	F _{ty} ksi (min)	Elongation (min %)	Reduction in Area (min %)
Solution Heat Treated	Hot Finished and Cold Finished	All	75	30	40	50
		Up to 0.5, incl.	90	45	35	45
		Over 0.5	75	30	35	50

4 ORDERING DATA

4.1 Procurement Documents

Procurement documents shall specify the following:

AMS 5640 Type I or Type II

Title, Number, Issue, and Amendment Number of this specification

Size of each piece of material (Imperial or US Measure)

Total quantity of material (Imperial or US Measure)

Acceptance Test Report (including actual mechanical properties test data)

de Havilland	Material Specification	DHMS: M2.23 ISSUE: original
STEEL, CORROSION RESISTANT, FREE MACHINING (303)		AMD.: 1 DATE: January 11, 1999. PAGE: 4 of 4

5 PREPARATION FOR DELIVERY

5.1 Identification

| Each piece of steel shall be marked AMS 5640 Type I or Type II and DHMS M2.23.

5.2 Packaging

The product shall be prepared for shipment in accordance with the manufacturers commercial practice and applicable rules and regulations to ensure safe delivery.

5.3 Shipping Documentation

Each shipment of material shall be accompanied with a shipping document containing the following information.

- Steel, Corrosion Resistance, Free Machining - 303
- DHMS M 2.23, latest Issue and Amendment
- | - AMS 5640 Type I or Type II, latest Issue and Amendment
- Manufacturer
- Purchase Order Number
- Lot and Package Numbers
- Quantity
- | - Certificate of Conformance to both AMS 5640 Type I or Type II and DHMS M2.23. The document must state actual test data conforming to the mechanical properties requirements of this document for each lot/batch of material received at de Havilland or its subcontractors.
- Material Safety Data Sheet (MSDS)

6 HEALTH AND SAFETY

Material supplied to de Havilland must be accompanied by a Material Safety Data Sheet (MSDS) complying with the "Controlled Products Regulations" of the Hazardous Products Act (also known as W.H.M.I.S. Regulations). The document must state all hazardous ingredients, safe-handling procedures, first-aid measures, and fire and explosion data.